

**REMARKS**

The Office Action dated October 19, 2005, has been received and carefully considered. In this response, claims 1 and 2 have been amended, and claims 19 and 20 have been added. Entry of the amendments to claims 1 and 2, and the addition of claims 19 and 20 is respectfully requested. Reconsideration of the outstanding rejections in the present application is also respectfully requested based on the following remarks.

I. THE ELECTION/RESTRICTION REQUIREMENT

On page 1 of the Office Action, the Examiner asserts that the election/restriction requirement is deemed proper and thus made final since the Applicants have not shown why the claimed product cannot be formed by the method proposed by the Examiner.

However, under 35 U.S.C. § 121, restriction is appropriate if two or more independent and distinct inventions are claimed in one application. As set forth in MPEP § 802.01, inventions are independent if there is no disclosed relationship between the two or more subjects disclosed, and inventions are distinct if two or more subjects as disclosed are capable of separate manufacture, use, or sale as claimed. The Examiner attempts to explain how a method (i.e., claims 1-6) is distinct from a product (i.e., claims 7-18). However, the Examiner fails to

explain how the method (i.e., claims 1-6) is independent from the product (i.e., claims 7-18). That is, both the method (i.e., claims 1-6) and the product (i.e., claims 7-18) are directed to reduced surface roughness on a conductive surface trace. Thus, the method (i.e., claims 1-6) and the product (i.e., claims 7-18) are related and are not independent from each other. Accordingly, it is respectfully submitted that the election/restriction requirement is improper, and the withdrawal of such election/restriction requirement is respectfully requested.

## II. THE ANTICIPATION REJECTION OF CLAIMS 1, 2, AND 6

On pages 2-4 of the Office Action, claims 1, 2, and 6 were rejected under 35 U.S.C. § 102(b) as being anticipated by either Taylor et al. (U.S. Patent No. 6,309,528) or Ozeki et al. (U.S. Patent Application No. 2002/0060090). These rejections are hereby respectfully traversed with amendment.

Under 35 U.S.C. § 102, the Patent Office bears the burden of presenting at least a prima facie case of anticipation. In re Sun, 31 USPQ2d 1451, 1453 (Fed. Cir. 1993) (unpublished). Anticipation requires that a prior art reference disclose, either expressly or under the principles of inherency, each and every element of the claimed invention. Id. "In addition, the

prior art reference must be enabling." Akzo N.V. v. U.S. International Trade Commission, 808 F.2d 1471, 1479, 1 USPQ2d 1241, 1245 (Fed. Cir. 1986), cert. denied, 482 U.S. 909 (1987). That is, the prior art reference must sufficiently describe the claimed invention so as to have placed the public in possession of it. In re Donohue, 766 F.2d 531, 533, 226 USPQ 619, 621 (Fed. Cir. 1985). "Such possession is effected if one of ordinary skill in the art could have combined the publication's description of the invention with his own knowledge to make the claimed invention." Id..

Regarding claim 1, the Examiner asserts that both Taylor et al. and Ozeki et al. teach methods for electroplating on at least one surface of a conductive circuit trace. However, it is respectfully submitted that neither Taylor et al. nor Ozeki et al. teach providing a layer of a circuit board having a conductive circuit trace on a surface thereof, and reducing a surface roughness of at least one surface of the conductive circuit trace on the surface of the circuit board layer so as to improve performance of a signal transmitted via the conductive circuit trace, as presently claimed. In contrast, Taylor et al. merely discloses a method of depositing metallic conductors onto the surface of circuit boards, wherein conductive metal is deposited to accommodate both small and large features, while

Ozeki et al. merely discloses a method for manufacturing a printed circuit board having a shielded transmission line in order to reduce the effects of external noise. Thus, it is respectfully submitted that neither Taylor et al. nor Ozeki et al. disclose, or even suggest, providing a layer of a circuit board having a conductive circuit trace on a surface thereof, and reducing a surface roughness of at least one surface of the conductive circuit trace on the surface of the circuit board layer so as to improve performance of a signal transmitted via the conductive circuit trace, as presently claimed. Accordingly, it is respectfully submitted that claim 1 should be allowable.

At this point it should be noted that if the Examiner is going to rely upon the theory that the claimed invention is inherent in either Taylor et al. or Ozeki et al., "the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of

that result or characteristic. In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

At this point it should be noted that claim 1 was amended to clarify that the conductive circuit trace is provided on a surface of a layer of the circuit board, and the reason for reducing a surface roughness of at least one surface of the conductive circuit trace.

Claims 2 and 6 are dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claims 2 and 6 should also be allowable at least by virtue of their dependency on independent claim 1. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

At this point it should be noted that claim 2 was amended to include additional aspects of reducing surface roughness.

In view of the foregoing, it is respectfully requested that the aforementioned anticipation rejection of claims 1, 2, and 6 be withdrawn.

### III. THE OBVIOUSNESS REJECTION OF CLAIMS 3-5

On pages 5-8 of the Office Action, claims 3-5 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Taylor et

al. (U.S. Patent No. 6,309,528) or Ozeki et al. (U.S. Patent Application No. 2002/0060090) in view of Nagai et al. (U.S. Patent Application No. 2002/0155021) or Taylor et al. (U.S. Patent No. 6,558,231). This rejection is hereby respectfully traversed.

Claims 3-5 are dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claims 3-5 should also be allowable at least by virtue of their dependency on independent claim 1. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by the cited references taken either alone or in combination.

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 3-5 be withdrawn.

#### IV. CONCLUSION

In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number, in order to expedite resolution of any issues and to expedite passage of the

present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

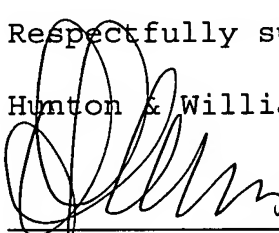
To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

Respectfully submitted,

Hunton & Williams LLP

By:

 #43,606 for  
Thomas E. Anderson  
Registration No. 37,063

TEA/vrp

Hunton & Williams LLP  
1900 K Street, N.W.  
Washington, D.C. 20006-1109  
Telephone: (202) 955-1500  
Facsimile: (202) 778-2201

Date:

1/19/06